

Alaska Energy Authority & Denali Commission

Emerging Energy Technology Fund Progress Report

Grant Number 7310051

Project title: Wind Diesel Battery Hybrid for Kwigillingok

Grantee: Intelligent Energy Systems

Reporting Period: Q1 2014 January 1, 2014 to March 31, 2014

Deliverables Submitted: The following Deliverables have been submitted in this quarter:

- Site instrumentation Plan
- Site agreement
- Factory acceptance test results/summary

Budget: The project remains completable under existing grant funds. Revised budget category totals and milestones have been submitted to program manager for acceptance into the grant document. All future progress reports will reflect the change of milestones.

Schedule Status: Project is working under schedule for new timeline submitted with budget and milestone revision. In order to accommodate a full year of system monitoring, revised project closeout should be June 2015.

Percent Complete: 70%

Milestone	Task		Deliverables	Status
	1	Complete site design	System one-line, site agreement, instrumentation plan	100% Complete
	2	Battery shelter procurement		100% Complete
	3	Factory acceptance testing	Acceptance results report	100% complete
	4	Procure remaining equipment		90% complete
	5	Deliver materials to site		90% complete
	6	Install instrumentation and collect baseline data		In progress
	7	Installation and commissioning	Commissioning report	In progress
	8	Long term system monitoring		
	9	Economic analysis	Economic analysis	In progress
	10	System modeling	Modeling summary report	In progress
	11	Data evaluation and draft project report	Draft project report	
	12	Final project report	Final report	

Work Progress: The following site work occurred:

- The trailer foundation and BESS shelter were moved into position from the Kwig barge landing in early January.
- The Shelter leveling and BESS HVAC units installed. 1/13/14
- The BESS shelter deck installed.
- The fiber optic communications from the BESS shelter to powerhouse installed and terminated. 1/16/14
- Bess Shelter utility power service installed by lineman subcontractor. 1/20/14
- BESS HVAC commissioned and energized by subcontractor. 2/1/14
- LG Chem Battery replacement. Replaced all 42 batteries in the BESS racks at no cost to the project. 2/25/14
- LUFFT weather station installed at the power house for metrological data collection. 2/28/14
- BESS Commissioning and integration started 3/22 continued into second quarter.
- **Future work:** Commissioning and integration of the BESS system. Data collection and final punch list items.

Appendix B - Photo log



Trailer foundation placed/leveled on pad



BESS shelter transported to site in Kwig



HVAC units installed mechanically



BESS deck construction



BESS utility power installed



BESS Utility power and fiber optic installed



Additional foundation leveling installed



Lufft weather station installed at the power house



Commissioning team



Integration and commissioning 3/22/14